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ABSTRACT

The present paper, a general survey of modern foreign language teaching as it is influenced by applied linguistics, discusses some of the outstanding works and foremost theories in the areas of psycholinguistics, sociolinguistics, programmed instruction, and contrastive analysis. In discussing the methodology involved in foreign language teaching, the author feels the best approach is an eclectic one: the teacher should attempt to use what is best for him and refuse to subscribe to any single narrow approach. He must keep an open mind to new ideas, but not be so impressionable that he is fascinated by anything new. The need for teacher training in linguistics, and in the related fields of psychology, sociology, literature, and audio-visual education, is pointed out. (A short annotated reference list concludes the paper.) (AMM)

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FOREIGN LANGUAGE TEACHING AND NEW DIRECTIONS IN APPLIED LINGUISTICS

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PREFACE

The present discussion concerns foreign language teaching and new directions in applied linguistics. Since many of the new developments can be better understood in light of previous trends, mention is often made to older approaches; nevertheless, the study here is a synchronic one.

My purpose is not prescriptive, nor should my position be interpreted as dogma. While certain views will manifest themselves as superior to others, value judgments are difficult to make in light of the present turmoil in this and related fields. Much more research is desperately needed until we will be able to rest on sound ground as we did during the heyday of the audio-lingual approach. Thus, I have attempted here to describe new trends in applied linguistics, and, where possible, to mention their direct application to language teaching; the general direction is from the theoretical to the applied. I feel that my efforts are justified if I successfully state and describe some of the current problems; an attempt to answer these problems or to reach any sagaciously astounding conclusions here and now seems a most precocious and pretentious step!

A realization of various ways to organize a treatment of this topic is responsible for much deliberation on "where" to include "what". Basically, the organization that I have selected is that of a seminar on "New Trends in Applied Linguistics" taught by Dr. Waldemar Marton, 1970. I will consider the topic with respect to psycholinguistics, sociolinguistics, programmed instruction in foreign languages, and contrastive analysis. Practical applications will be suggested throughout the paper and therefore does not necessitate a section of its own here.

The approach is broad. Ground is covered quite rapidly and superficially at times and ideas are sometimes blurred or simplified beyond intention as a consequence; explanatory annotations are an attempt to rectify this unfortunate situation, or at least serve to remind the critical reader that his edition is abridged. It is hoped that the frequent reference to supplementary material will not discourage the interested investigator.

Regardless of when one begins a discussion of this magnitude, there is never enough time to successfully undertake completely the massive task one initially intended, and there are always residual shavings of interest which result from frustrating attempts to warily whittle a feasibly workable project out of the original monstrosity. The innumerable possibilities for further research are recognized, and some of the seemingly more productive areas have been suggested in a final chapter of this paper. The bibliography seems to be an adequate one for further investigation far beyond the scope of the present study. In addition, a minimal reference

list has been provided for the interested reader who is seeking still further information on new developments in applied linguistics.

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I. PSYCHOLOINGUISTICS

In the past decade, there has been a lot of turmoil in psychology, and particularly in that branch of psychology concerned with learning. While psychologists do seem to have many solutions to specific practical problems which the language teacher encounters in the classroom and language laboratory, many of these suggestions are readily available in various sources [1] and it does not seem necessary to consider them in any detail here. But some things which do seem worthwhile to consider are selected areas which psycholinguists are currently studying: the audio-lingual approach which was motivated by behaviorism, the psychological nature of linguistic competence and transformational grammar, innateness and language acquisition, language disorders, learning preferences and styles, cognition, testing, and teacher training. These areas will be dealt with one by one in the following paragraphs, but it must be kept in mind that this organization is for heuristic purposes and that the ideas overlap and influence one another considerably and in reality do not categorize so neatly.

Until about ten years ago, it was thought that the aural-oral, audio-lingual, or linguistic method or approach had all the answers. The ideas behind this approach are that language is speech, that speech precedes writing, that the contrastive systems of phonology and grammar can be described with considerable accuracy, and that knowledge of a language as a <u>system</u> for conveying meaning is more important than knowledge of the meanings themselves. These ideas were reinforced with the ideas from the most predominant learning theory of that time, behaviorism (inspired by B. F. Skinner), which emphasized habit formation, interference, and programming. Thus, the teacher put special emphasis on teaching the spoken language, teaching language as a system, establishing the system as a set of habits, reducing the language learning load by teaching only that in the target language which contrasted with that in the native language, teaching principles inductively as they were believed to be acquired, and reinforcing the desired responses. [2] This method was a synthesis of and utilized some of the features of previous methods: the traditional approach of grammar translation, the direct method, the graded-direct method, and the old Army Language Program.

But in 1957, Chomsky set forth his <u>Syntactic Structures</u> [3] which upset the situation considerably. In his work, he questioned the basic tenets of linguistics, he outlined an entirely new set of assumptions, and he formulated a new set of questions. Ronald Wardhaugh believes that "it is impossible to understand current issues in teaching English to speakers of other languages without having some understanding of the generative-transformational theory associated with Chomsky." [4]

The generative-transformational theory stresses the creative, rule-governed nature of the native speaker's linguistic knowledge and it attempts to establish criteria by which different models of this knowledge can be evaluated. Competence models (those associated with the speaker-hearer's knowledge of his language) are concerned with ideal linguistic behavior in an ideal setting. While competence itself underlies performance (the actual use of language in concrete situations) and explains part of it, grammars are not to be taken as performance models. Bernard Spolsky writes that the full importance of transformational generative grammar lies in its attempt to set up a basic model of language acquisition and performance. A transformational grammar, he says, is not a performance model, but an attempt to specify conditions that must be met by acquisition models. Thus, any theory of language acquisition must account for the fact that the learner derives from an unorganized corpus of raw data a grammar which he then can use for the production and recognition of new corpora. 5

In Chomsky's work, the phonological, grammatical, and semantic components are not independent from each other as they had been previously. Usually syntax or semantics is taken to be the core system while the other two are then considered subordinate. Linguists use the competence model in an attempt to explain how it is that a speaker selects the content of what he wants to say while at the same time producing that content in some kind of surface structure. But at that time, Chomsky left some loose ends: he gave no precise definitions of deep structure and surface structure, he was not very explicit about distinguishing these different systems, and he was quite vague about explaining how deep structures went to surface structures via transformations. Nevertheless, he set down a new theory.

But linguistic insights are not necessarily pedagogical insights, and it is not an easy mechanical process to convert one to the other. Joshua Fishman writes that "... there is nothing as practical as a good theory. On the other hand, ... there is nothing as theoretically provocative as sensitive practice." 6 While generative transformationalists have stressed the importance of relationships between sets of sentences (where one underlies the other as in "Semantha interrogated Jethro" → "Jethro was interrogated by Semantha"), it is not necessarily this information which is conveyed to the students. Rather, the teacher can understand ordering from this insight and perhaps apply her new knowledge by teaching the simple before the complex. The teacher must be discreet in what and how much she chooses to explain in that theoretical insights will not always be understood by the student nor be of immediate value to him. Ambiguity is another area with which a transformational grammar has been able to cope: there are at least eleven possible interpretations of the sentence "I saw him in the park with binoculars". The teacher may thus see the relevance of teaching items in context or with reference to a discourse. The problem of phonology may not be new, but ordered rules and distinctive features

are, perhaps. Here, the idea is that competence and performance are important in language teaching. Further, in the area of syntax, the teacher is confronted with such problems as acceptability and grammaticality: "The girls has left", and "I want you should stay". Again, reference to the situation is helpful. Further, the teacher must realize that he is working with a social, live phenomenon, language, and that his students are not machines nor amorphous masses; their attitudes, intuitions and preferences must be taken into account.

It is hard to deny that the theory of transformational generative grammar has given us insights into language. But is seems most important to consider what Ronald Wardhaugh expresses:

> In a sense they [the insights gained from the generative transformation theory] are the artifacts of that theory and are correct only in the sense that they conform to the requirements to the theory. But, it may well be that theories themselves are neither correct nor incorrect: theories are more interesting or less interesting, rather than correct or incorrect. They are more or less interesting because of the questions they raise and the answers they suggest for these questions. Unless they continue to raise questions and provide insights, they become shop-worn and valueless. [7]

Thus, theoretical insights gained from linguistics must somehow be incorporated into the classroom. Chomsky himself expresses skepticism about the immediate usefulness of theory to language pedagogy, but it seems as though premature despair is a poor excuse!

Today we have additional versions of learning theory available. [8] But John B. Carroll feels that "... available psychological theories are a long way from dealing with the complexities of language behavior, particularly its grammatical features." [9] And yet it is all we have to work with until tomorrow, and so we can not be paralyzed until then.

Innateness, language disorders, learning preferences and styles, cognition (cognitive development and cognitive structures), testing, and teacher training are of major concern to psychologists today, and any approaches to teaching must necessarily be concerned with the same. Each of these topics will be discussed briefly in the following paragraphs.

David McNeill writes that

> an innate capacity for language can be represented by the set of linguistically universal statements that are organized into linguistic theory. The acquisition of language can be regarded as the guided (principled) choice of a grammar, made on the basis of a child's innate capacity, a choice consistent with the evidence contained in the corpus of speech provided by the mature speakers to which a child is exposed. [10]

Some questions to be raised here are: How does this theory account for the acquisition? How does it account for the speed of acquisition? Also, how are first and second language acquisition related? [11] Clifford H. Prator asserts: "There is actually no way whereby the circumstances under which a child learned his mother

tongue can ever be reduplicated for the learning of a second language." [12] He classifies some of the differences under the following ten headings and devotes the remainder of his paper to a discussion of these topics. [13]

1. time available
2. responsibility of the teacher
3. structured content
4. formalized activities
5. motivation
6. experience of life
7. sequencing of skills
8. analogy and generalization
9. danger of anomie
10. linguistic interference

Vivian J. Cook also believes that there is little similarity between the process of first and second language learning. She contends that a method for teaching a foreign language that could justifiably claim to be based on first language acquisition would have to meet the following requirements:

1. Allow the learner to progress by forming a series of increasingly complete hypotheses about the language;
2. Consequently, it would permit and encourage the learner to produce sentences that are ungrammatical in terms of full native competence in order to test these hypotheses;
3. That it would emphasize the perception of patterns rather than intensity of practice;
4. That its teaching techniques would include partial repetition of sentences, verbal play, and situationally appropriate expansions of the learner's sentences. [14]

No method can claim the above yet, and it remains to be seen whether or not the analogy between first and second language learning is sound. Thus, the foreign language teacher who, in her teaching, dogmatically adheres to principles based on first language acquisition may be challenged by the results of future experiments.

Language disorders are another concern to psychologists. According to Sheldon Rosenberg in his "Overview", [15] the ILAS (Innate Language Acquisition System) includes a general cognitive component, a specific cognitive component, a receptor--effector (auditory-vocal) component, a motivational component that leads to active participation, an environment component in the form of a corpus of adult language utterances, and a critical developmental (maturational) component. Disorders are the result of conditions affecting any of these components. [16] In aphasia, for example, it seems that both competence and performance functions are affected while in the schizophrenic patient, only performance seems to be affected; in the latter, the patient may be guilty of such things as idiosyncratic associations, idiosyncratic word meanings, difficulties in categorizing words and word repression or blocking. Much more research is desperately needed here.

Another concern of psychologists today is with the ways in which people learn. To be sure, different people learn in different ways, and adults have even learned to learn in certain ways. Some people are visually oriented while others are more aurally oriented. It seems to have been confirmed that there is nothing magic about the order listen, speak, read, and write. Further, deductive learning seems to be as effective as inductive learning. Discussion is as valuable as practice

and both are necessary. Finally, it is desirable to teach as much as possible in context and with as many different associations as possible.

Psychologists are becoming increasingly more interested in the cognitive-code learning theory (as opposed to the audio-lingual habit theory) which stresses explanation and meaning and places less emphasis on the overlearning of the audio--lingual method. But the success of this theory is limited until more research is done regarding how to present an explanation to the students, how to make explanations useful, and at what point in the lesson should the explanation be introduced, and the value of overt explanation to students of different ages. Such points as keeping explanations short and clear, drawing parallels, breaking large patterns into small ones, and not generalizing too much are useful when presenting an explanation, but the cognitive-code learning theory is yet foreign to many language teachers. Ronald Wardhaugh is very optimistic: "Since the psychology they espouse is cognitive rather than behavioristic, it is likely that there will be some kind of union of generative-transformational grammar and cognitive psychology." [17] Certainly such a union would greatly influence language teaching.

The field of testing is gaining interest, and psychologists, linguists, and pedagogists are becoming more and more involved with the theories underlying this area. [18] The most recent works that have been completed on testing are listed in Ronald Wardhaugh's paper. [19]

To say the least, there is still much uncertainty about how a language should be taught and experiments are often inconclusive and unreliable in their results. The best approach seems to be an eclectic one; the teacher should attempt to use what is best <u>for him</u> and refuse to subscribe to any single narrow approach. He must keep an open mind to new ideas, unlike the standpat traditionalist, but he must not be so impressionable as the adventurer type of teacher who is fascinated by <u>anything</u> new. In this light, teacher training is a crucial problem. All programs favor an emphasis on good preparation in linguistics, and most programs encourage study in related fields of psychology, sociology, literature, and audio--visual education. But there are relatively few doctoral programs in applied linguistics because of its low status in comparison with theoretical linguistics. While information dissemination has contributed a great deal to keeping teachers up-to-date with current developments, the problem still exists.

At this point it would be pleonastic to say that more research is needed, although that <u>is</u> the present state of the art. Current theories must be re-evaluated in the light of contemporary advancements, and we must not get "caught" too firmly by one theory or method or technique. Tomorrow is a new day!

II. SOCIOLINGUISTICS

During the past five years, interest in sociolinguistics, "... the systematic study of the relation of linguistic forms and social meaning ..." [20] has greatly accelerated. J. Blom and J. Gumperz suggest that social relationships act as intervening variables between linguistic structures and their realization in speech. [21] In contrast to the field of psycholinguistics, many of the main figures in the development of sociolinguistics are linguists who have found that social features are continually central to linguistic descriptions. A second difference lies in the diversity of social scientists (anthropologists, sociologists, social psychologists, psychotherapists) working on subjects in the general area of sociolinguistics.

The topics to be discussed here are: teaching standard English to non-standard speakers, second language learning and second dialect learning, the development of materials, and bilingualism. Other current topics in sociolinguistics are speech variables (paralinguistic features, linguistic features, topic and meaning), linguistic diversity (attitudes toward speech diversity, rules for diversity), and switching (personnel, situation, functions of interaction, rules for switching), [25] but since the scope of the present paper must be restricted for reasons of brevity, these latter topics will not be treated here. It is, rather, the formerly-mentioned areas which will be investigated in the following paragraphs.

One of the most controversial problems in teaching English to speakers of other languages is whether or not standard English (however it may be defined) should be taught to speakers of non-standard dialects of English (however these are defined) in quasi-second language situations. The best approach is not an all-or-nothing one. Rather, the materials should be designed to add to the student's language skills by helping him achieve command of another style, i.e. that of standard English. The crucial concept seems to be that of teaching behavior appropriate to the situation. Given the initial acquisition patterns, the dialect and the standard remain separate because of the cultural identities they communicate and the social values they imply. The new approach then is to cultivate these different cultures so that we no longer have a melting pot, rather an "ethnic mosaic" and the tendency is to preserve. It is significant that a dialect be appropriate to the situation; while it is grammatical rules that make language understandable, it is social rules that make it acceptable. The individual will use his own dialect in his community because he is proud, but with those outside his community he will use the standard dialect if the situation merits such.

William Labov and Paul Cohen have pointed out that the difference between a

dialect and the standard form are greater on the surface than in the underlying grammatical structure. They admit that there are differences in the deep structure which merit independent phrase-structure rules, but that it is reasonable to assume "... that a single grammar can be constructed which accounts systematically for the syntactic variation inherent in all styles of the speech of this community." [22] This seems to suggest that perhaps the differences between dialects of the same language are merely superficial ones; the foreign language teacher should recognize the similarities as well as the differences.

It seems that some factors are similar between second language learning and second dialect learning: linguistic models, contrastive analysis, learning theory, and contextual support. However, some factors are subtly different. Because of some very subtle differences between the student's own dialect and the target dialect, contrastive analysis may not be too effective in pointing out these differences. Exercises will have to differ since the student already knows the language, unlike the foreigner, and his needs are different in this respect. The context of learning is very difficult to assess because the learner is likely to be of a different race, social class, age group, etc. from those with whom he identifies the standard form. His needs and motivations are also different from the foreigner who can distinguish the two languages and knows his task. Finally, the task of the non-standard speaker is not easy to understand either for him or for the teacher. Thus, the relationship of second dialect teaching and second language teaching deserves some very special attention. [23]

In developing materials, one must begin at a point meaningful to the learner. Further, in utilizing the different patterns of the non-standard dialect, preference should be given to the speech pattern that permits the transition from the student's dialect to the standard dialect by adding to the student's dialect. Finally, it is essential to focus on one pattern at a time and to proceed systematically in accordance with linguistic principles. For example, if the student is "corrected" in a chaotic way each time his speech differs from the standard usage, he may become confused and discouraged. Such systematization also helps to avoid new errors. [24]

A further area of major concern is bilingualism. Joshua Fishman defines bilingualism as "demonstrated ability to engage in communication via more than one language." [26] He does not restrict his definition to any particular level of performance or to any particular kind of communication as he believes that bilingualism does not have to be "equal (balanced) and advanced mastery of two languages." [27] Of course, people differ greatly in the degree and in the kind of their bilingualism, but it is exactly this idea that has made bilingualism so susceptible to psychological, sociological, linguistic, and pedagogical investigation. The basic assumption here is that "there is no degree of second language achievement unrelated to

particular kinds of bilingualism." [28] It seems significant to recognize that there are basically two types of bilingual functioning: compound or interdependent bilingualism, and coordinate or independent bilingualism. (And of course there are all kinds of combinations of the two types. In fact, most bilinguals manifest both types of functioning.) The compound bilingual thinks only in his mother tongue and uses it as a mediator for the other language; the neurological organization is fused and one language depends on the same neurological component as the other. The coordinate bilingual, on the other hand, keeps each of his languages separate. But the distinction is not an absolute one.

The contexts of bilingualism vary. The degree of an individual's bilingualism will rarely be the same in different media (speaking, reading, writing), in different roles (comprehension, production, inner speech), at different formality levels (intimate, casual, formal), and in different domains of interaction (home, government, religion, family). These four contextual areas are interrelated and concurrently affect the speaker.

There are a number of different ways in which performance can be evaluated; ultimately, it must be in terms of some sample of the pupil's language performance. The tendency has been to evaluate bilingual performance in terms of absence of interference; in the light of this criterion, the subject is more bilingual if his mastery of the phonology, grammatical structure, and lexical items of one language show no traces of the same of the other language. Psycholinguists use automaticity of response as their criterion while sociolinguists are likely to suggest frequency of use as their ruler of bilingualism. The educational-testing approach in their evaluation of bilingualism stresses the size of the repertoire as well as other criteria already mentioned. Whatever be the criteria, it is crucial that questions on bilingualism are closely related to educational philosophy and instructional methods.

J. B. Pride states that the greatest single crux in the language learning problem is the achievement of bilingualism without prejudice to one's cultural identity. [29] Certainly, students differ in their motivation for second language learning; some students have utilitarian reasons for studying a foreign language while others have integrative reasons. Depending on the nature and the origin of the students' motivation, they tend to learn differently. Students who are genuinely interested in the target culture and its people tend to adopt various attitudes and self-views which characterize native speakers of the target language. If the student continues to adapt to the ways of the target people, feelings of anomie, homelessness, and uncertainty with respect to both groups may develop and have detrimental repercussions on the student. The teacher must be sensitive to the problem, and by recognizing it, she can probably rescue it.

But why should one learn a foreign language, anyway? J. Fishman seems to effectively express the answer to the question as follows:

> Not only does the bilingual master two different codes, but he masters two different selves, two different modes of relating to reality, two different orders of sensitivity to the wonders of the world. These are the very reasons why bilingualism has been treasured by social and intellectual elites throughout the world and throughout the ages. [30]

Benjamin L. Whorf was emphasizing this idea many years ago. Therein seems to lie the real benefit of bilingualism.

III. PROGRAMMED INSTRUCTION

What is programmed instruction? Albert Valdman defines it as "... an educational technique which starts from the premise that learning results from the shaping of behavior toward some predetermined criterion by way of a technique through which optimum process is determined by student behavior." [31] John B. Carroll points out that there are three essential characteristics of programmed instruction, and that without these, the material could not qualify for such a title.

1. Programmed instruction must be based upon an adequately detailed specification of the "terminal behavior" (that is, new skills, knowledge, or response tendencies) which the performer desires to produce in students taught by the program.
2. The material of instruction must be organized and presented in a carefully designed sequence of steps such that to the greatest extent possible, each step is made easier by virtue of the material learned in previous steps. As a corollary to this requirement, the steps must also be of an appropriate size for the student to master readily: a student may be ready to take a larger step if he has been properly prepared for it, and thus the program can lead to more efficient learning if sequencing and step-size have been properly attended to in preparing the program. In practice, it is found that the optimal size of step is considerably smaller than is usually assumed by inexperienced programmers.
3. The student must have an opportunity to test his mastery of each critical step as he proceeds through the program. The program is so constructed that correct responses are promptly confirmed and the student is led to understand and correct wrong responses. When the material is properly programmed, simply exhibiting the correct answer will usually enable the student to do this. [32]

Albert Valdman states the characteristics as follows:

1. Rigorous specification of terminal behavior
2. Division of the subject matter to be taught in a gradual sequence of optimum minimal steps
3. Immediate confirmation and reinforcement of student responses
4. Active mode of response on the part of the student
5. Revision and modification of the materials to accomodate individual student differences [33]

A program is a specific series of stimuli that are presented in a strictly specified sequence to a student in such a way as to elicit active responses from him and to inform him of the appropriateness of his responses in light of the goals of the particular program. A program is divided into frames and each frame presents a new step in the learning procedure.

A program may be presented in various ways (books, teaching machines, magnetic tapes, and so on), and it may be completely self-instructional or the teacher may work with the student who is using the program. Further, the student may work at his own pace.

There have been in existence various ideas of instructional machines since about 1800. And programmed instruction is not new, but is perhaps exemplified by the Socratic dialogue. [34] The credit for arousing psychologists and educators to the possibilities of programmed instruction is due to B. F. Skinner and his ideas about learning.

The fundamental psychological notion underlying programmed instruction is that it is possible to describe and classify the behavior of an individual, and cause changes by certain definite procedures. The idea is based on overt, observable behavior which may be classified as respondents (elicited) or operants (emitted). For Skinner, learning is the outcome of the reinforcement of operant behavior. This technique, shaping, also involves forming discriminative behavior by reinforcing a given response in the presence of a given stimulus. As applied to programmed instruction, these psychological ideas help to set up certain precepts which assist the writer of a program: one must know what he wants to teach, and he must state the desired terminal behavior; he must arrange his subject in order to elicit the appropriate responses; he must reinforce the desired responses until they occur with satisfactorily high probability; he must teach a discriminative response.

Research in programmed instruction has discovered two techniques. One way is to proceed through the program frame by frame, not omitting anything; this is the linear technique associated with Skinner. The other way, the branching or intrinsic or cyclical or recursive organization pattern, is associated with Crowder and suggests that the student skip over what he knows and branch into extra frames on points where he is weak. Responses may be of a constructed type or multiple choice. While the latter is very efficient and time-saving, the former type is somewhat better in foreign language teaching as they avoid the problem of false associations in the beginning.

A totally self-instructional program has several drawbacks: students miss the student-teacher relationship; reinforcement from a machine is not sufficient to provide high motivation; no free expression is permitted and the student can not deviate from the course set by the program; some students feel lost without the security of a textbook; dissatisfaction in communicating with a machine; a totally self-instructive program can be monotonous as there are no other students; there is no healthy competition; the student is usually too much aware of his own slow progress and becomes easily discouraged. If the teacher is available, the program seems more attractive: 90% of the time with the machine and 10% with the teacher is the ratio suggested by some.

Programmed learning as such does have certain strengths which should not be overlooked. Phonology is most successfully taught because the student is drilled immediately in sound discrimination. In the classroom, the students are exposed

to each others' trials and errors, but when the student is working alone he is able to concentrate more on the phonological aspects of the model. Second, programmed instruction provides a great deal of practice for basic, fundamental skills, and concentrates on specific structures. This is especially helpful in a tutorial situation or for remedial students. Third, programmed instruction is quite suitable for correspondence courses. Further, it is good for educational research and for working out the theory of language learning in general; it is easier to control variables and thereby test hypotheses. Finally, the theory of programmed instruction is of great assistance in the development of teaching materials.

There is no doubt that programmed instruction is still in the experimental stage. There are relatively few <u>good</u> programs available. It is certain that there are some major problems with programmed instruction in foreign language teaching. First, the programs have made some overzealous claims which only time can handle. Further, programmed instruction will work best with very highly motivated students, as Ph.D. candidates. There are many ineffective programs being written of which the major problem is the size of the steps. While it is possible to insult the intelligence of the learner by breaking up a learning task into too many steps, most subject-matter specialists who try programming tend to make steps much too large; paradoxically, the greater the number of frames a program contains, the faster the student works through it. Thus, we can understand why "the thorniest problem in the application of programmed instruction to foreign language teaching problems is the determination of steps." [35] Another problem is that the foreign language programs are attempting to produce a native speaker; perhaps the terminal goal should be modified to produce a cultivated but not native accent. Bernard Spolsky points out that there is a difference between "knowing a language" and "language-like behavior". "One is said to know a second language when his competence is that of a native speaker", but his performance need not be identical. [36] Spolsky further contends that programmed foreign language instruction has not yet been shown to be capable of going beyond "language-like behavior" to produce language competence. [37] Further, programmed instructions are exceedingly costly and consequently, many of the small enterprises are being forced out of business and some very good work is thereby lost. Research is expensive and funds are not available for such ventures. Finally, programs require the writer to specify exactly what must be taught and exactly what is expected as terminal behavior; in light of the present state of the art, perhaps no one is capable of performing such an act.

Guided learning seems to be an answer to those who are enthusiastic about programmed learning but skeptical about its lack of human concern. Guided learning proposes work in the language laboratory or with a programmed text or other programmed materials, a session for communication with a native speaker, and a meeting

with the teacher. Although this seems to be a promising area, its application to foreign language teaching is still in its infancy and more needs to be done before claims can be made.

The evaluation of foreign language programmed materials is certainly not an easy task. Valdman mentions two sets of yardsticks that may be used in assessing the pedagogical effectiveness of such materials: internal or external validation. Internal validation consists in reviewing the frames to confirm that observable responses are required, responses are reinforced immediately, reinforcers can not be obtained without the emission of the desired response, the observing behavior is controlled, the responses are sequenced in order to provide a gradual progression toward the terminal behavior, responses are adequately prompted, and there is sufficient fading as the student progresses toward the terminal behavior. The error rate must be tabulated and frames which are consistently missed need to be either modified or eliminated. External validation consists of comparing the results attained by the use of the particular program with those obtained by the use of either other programs or other types of instruction. These types of experiments are extremely difficult to execute with adequate controls, and the results are often inconclusive. Trained people -- linguists, psychologists, pedagogists -- are needed to assess teaching materials. 38

In recent years, concern has centered around both programmed and spiralled materials. The former is popular, but is yet somewhat unrealistic in that it requires a specification of exactly what is to be taught and a detailed description of the expected terminal behavior. It is a precocious individual who can carry out this task! On the other hand, spiraling materials seem more practicable in that they allow for the growth and uncertianty and they recognize a gradually developing control over various kinds of structures, rather than a mastery of item-by-item.

Much more research is needed, and possibilities need to be exploited. As Spolsky concludes his article, so I conclude this section: "programmed foreign language instruction is a useful medium, but we can not let the medium set the limits of achievement." 39

IV. CONTRASTIVE ANALYSIS

In a general sense, contrastive analysis, the close and scrutinizing systematic comparison of two related items, is, of course, old in the study of language. William Jones was one of the first to work with Sanskrit in the field of comparative philology. It was not, however, until the last half century that contrast, and especially the more stringent contrast, opposition, became key notions in linguistic analysis. Contrastive analysis is comparative linguistics in a very general sense, although the term "comparative" is usually used for genetic purposes. In practice, however, it is not uncommon to restrict the term "contrastive" to the systematic comparison of certain groups of elements in two (or more) languages, without any reference as to their genetic relationships, typological affiliation, etc. Such a comparison is of basic importance for effective language teaching.

In its application to foreign language teaching, [40] as well as its theoretical implementation in bilingual studies, [41] a contrastive analysis has traditionally been associated with a behavioristic model of language acquisition. The view of language as a system of habits led the linguist to explain the causes of language--learning errors in terms of the incompatibility of the student's native-language habits with those believed to be the ones of the target language. Since the linguistic model most closely associated with the behavioristic psychological model was the structural one, it is not surprising that linguists regarded contrastive analysis as a transfer of phonemes, morphemes, and the patterns in which they occur. In the past ten or fifteen years, it has become evident that judgments about how languages differ structurally are inadequate in predicting with total success the instances of language-learning error. The validity of a behavioristic model has been questioned by Chomsky, and new techniques in linguistic description are being developed.

After serious exposure to contrastive analysis, it seems that no one could doubt that it is useful in understanding and meeting certain needs for discovering and mastering patterns and structures of a "new" language. But it must be kept in mind that contrastive analysis does not itself add any new data; it is a technique whereby two languages can be systematically compared on all levels of their structures. Thus, organizing the comparison of languages, we can sharpen the focus and perspective of the resulting descriptive statements. Gerhard Nickel and K. Heinz Wagner summarize the results that can be expected from a contrastive analysis:

1. Although the aim of a contrastive analysis is primarily the description of a contrastive grammar of the differences of two languages, it will also show, at least in the theoretical framework suggested, the <u>similarities</u> of two languages. Two types of similarity can be

distinguished:

i. features that characterize natural languages in general, i.e. language universals.
ii. similarities of the languages compared, particularly if these languages are related. These may be termed interlanguage similarities.

2. The main purpose of contrastive analysis is to give a detailed description of the differences between the languages compared.
3. A further important aspect of contrastive analysis is to establish a linguistically motivated hierarchy of difficulties. [42]

But skepticism about contrastive analysis is understandable. Donald M. Topping of the University of Hawaii says in an article of his that he believes contrastive analysis to have some serious shortcomings. "Contrastive analyses often fail to go beyond the stage of minimal phonemic contrasts.... They [graduates of TESOL programs] seem to suffer from a sort of minimal pair-alysis." [43] In an IRAL article about a year ago, Carl James, the author, suggested a deeper contrastive study.

Contrastive study ... can be revitalized in a number of possible ways:

1. the reliability of contrastive analysis as a predictive device in L_2 pedagogy is in doubt.
2. psychologists should be consulted on interference, transfer, etc.
3. special application in theory of translation. [44]

Other questions and doubts might be as follows: can one do a contrastive analysis without going into the "hole" of the Latin grammarian? In a contrastive analysis, one is always a victim of his own biases, and there may be a subconscious attempt to bend the target language toward the native language. If the items of one language are unique to that language, is a contrastive analysis really possible? For an analyst, the similarities are not as interesting as the differences, perhaps. Is there any value is a contrastive analysis which is not rigorous and scientific? In view of a wide range of variables — stylistics, dialectics, etc. — how can one arrive at the corpus of his contrastive analysis? Finally, how successful is contrastive analysis in predicting students' errors? J. C. Catford believes that the function of a contrastive analysis is explanatory rather than predictive. [45]

Perhaps there is so much skepticism because the contrastive analysis is superficial and sketchy in the areas of morphology and systax and cultural comparisons. Further, language teachers of experience tend to feel that the discoveries resulting from contrastive analysis are "old hat" to them: they already know from experience that the Latin American student is going to have trouble with English "b" and "v". But here they need to be reminded that contrastive analysis is a technique and not an additional corpus of information to their already well-known ones. Contrastive analysis is a systematized approach to viewing a very complex mass of data, providing focus and perspective to the language teacher who wants to improve his own competence and efficiency as a teacher.

The information to be discovered from contrastive analysis is not hard to come--by. Every language teacher knows that the first day in the classroom he acquires

this type of information. It should be recognized, however, that contrastive analysis, even the most formal kind done with scientific rigor, is not a method for teaching the skills of communication in the target language. Contrastive analysis does not tell <u>how</u> to teach, but <u>what</u> to teach.

The pedagogical applications are many. Contrastive analysis can assist the teacher in evaluating the language and cultural content in the textbook. It can assist the teacher in preparing new teaching materials and in supplementing the already extant ones. It can also assist the language teacher in diagnosing difficulties. Contrastive analysis can help to predict learning problems where the native and target language differ, or where the feature is unknown to the learner. In L. Dušková's article, "On Sources of Errors in Foreign Language Learning", [46] she points out the errors made by Czech students with English articles, since there are no articles in Czech. Thus, Czech learners possess no frame of reference which might facilitate comprehension and mastery of use. She says that contrastive analysis is weak here because we have a sad state of affairs when we look at what has been done in attempting to order and systematize the articles of English. While the difficulty here is due to the absence of this grammatical category in Czech, further interference from the article system itself begins to work once the student begins conquering this problem. In other words, we have all kinds of exceptions to our so-called article "system" (the use of the definite article vs. the use of the indefinite article, and others). Thus, this is accountable to interference within the target system itself (I have called this an intra-organic problem as opposed to an inter-organic one). Thus, a contrastive analysis will not do the complete job here, but rather will be most effective for inter-organic problems.

It is not always an easy task to predict what kinds of errors will be committed since the competence and performance of the student in his native language is not exactly known. It seems that with regard to different conceptualizations of different worlds, only experience with perhaps psychology can come close to establishing any hierarchy or pattern of difficulties of various individuals.

Contrastive analysis is not an infallible technique, surely, but it is, nevertheless, a valuable and productive one. Further, contrastive analysis can help the teacher in the area of language testing; it is worthless to test the student on that which he knows very well, and a test based on contrastive analysis can test the student on the real problems. Finally, contrastive analysis can be useful in research and in the psychology of language teaching and learning.

Donald Bowen writes in 1967 in an article from the <u>TESOL</u> series:

> Much has been spoken and written about the contributions, potential and real, of contrastive analysis to language teaching. It has been claimed that learning problems can be more specifically defined, that the importance of certain deceptively "simple" teaching problems can be underlined, and an adequate amount of emphasis can be planned, that teaching

> efficiency can be increased by observing which points need early attention and/or special emphasis, that errors can be anticipated early and prevented, so that the need for later remedial work can be minimized, that the detailed knowledge of a systematic comparison will give the teacher added confidence as he faces his class. All of these claims can be true, but none has the certainty of death or taxes. 47

He summarizes all of this by saying that the contrastive analysis can increase the rate of gaining useful experience. 48

Thus, contrastive analysis can specify individual or specific problematic areas and then integrate them into structurally meaningful patterns and systems. Further, contrastive analysis can reveal system conflicts that might otherwise be missed. It makes certain intuitive things come to the surface. Sometimes a helter-skelter thing can be simplified if put into a pattern as Chomsky did with English verbs when he recognized the tense morpheme as an independent element which joins whatever verb form is near in the auxiliary pattern. Furthermore, by patterning data, descriptive generalizations can be made and the learning load is reduced. Generalizations also give the learner a feel for the language which will enable him to generate an infinite number of acceptable utterances beyond those of his textbook. But Nickel and Wagner advise that we whould not be over-enthusiastic about the contributions of contrastive analysis in the near future.

> It has not yet overcome its teething troubles and is still lacking sound theoretical foundations. It will take years of hard work before the contrastive analysis of any two languages can yield satisfactory results which can be used with profit in the preparation of adequate teaching materials. 49

But one has to begin somewhere!

V. SUGGESTIONS FOR FURTHER INVESTIGATION

It seems that in any research work one is certain to encounter related subjects of interest which must be put aside for the moment since they are not core to the topic at hand and since the researcher is persistently harassed by artificial limitations of Time. But these are the transitional doors which lead to other areas of study, and at times into the wilderness. Since the approach here has been broad rather than deep, many of the general areas mentioned are deficient in detail and may be further supplemented. Some of the seemingly more productive fields for further study which suggested themselves to me during the course of the research for this paper are as follows. I have tried to cite sources of reference wherever possible or particularly helpful. The ordering here is arbitrary.

Early bilingualism and cognitive development [50]

Early bilingualism and personality formation [51]

If cognitive psychology and generative transformational grammar were to unite as an independent field of investigation, how would this affect language teaching?

The teaching of the literature of a foreign language [52]

Testing [53]

The creative aspect of language

A deeper study of competence and performance [54]

VI. A MINIMAL REFERENCE LIST

In recent years there has been an information explosion in the field of foreign language teaching, and it is by no means a simple matter anymore for the language teacher to become more knowledgeable in the subject matter of his field by keeping himself wee-informed as to current developments. The following brief list of bibliographies and periodicals is offered to assist the teacher who is seeking more information on current trends in applied linguistics. By investigating these basic references it is hoped that the individual will be able to proceed in whatever specialized directions his interests take him.

Bibliographies

Allen, H. B., Linguistics and English Linguistics.
New York: Appleton-Century-Crofts, 1966.
(Intended for graduate and advanced undergraduate students in English, education, linguistics and related areas who desire a convenient guide to linguistic scholarship.)

Ferguson, Charles A. and William A. Stewart, Linguistic Reading Lists for Teachers of Modern Languages.
Washington, D. C.: Center for Applied Linguistics, 1963.
(In addition to the General Reading List which recommends 30 references of interest to teachers of any language, there are separate lists for French, German, Italian, Russian, and Spanish.)

Hammer, John H. and Frank A. Rice, A Bibliography of Contrastive Linguistics.
Washington, D.C.: Center for Applied Linguistics, 1965.
(Contains nearly 500 entries on contrastive studies involving languages from Afrikaans to Zulu. Approximately 75 languages in all. There is also a short section on contrastive analysis in general.)

Shen, Yao and Ruth H. Crymes, Teaching English as a Second Language: A Classified Bibliography.
Honolulu: East-West Center Press, University of Hawaii, 1965.
(Contains nearly 900 entries under four main headings: phonology, grammar, methodology, and journals.)

Periodicals

IRAL (International Review of Applied Linguistics in Language Teaching)
A quarterly journal, generally somewhat more technical in tone and broader in scope than TESOL or the Linguistic Reporter. Contains articles of general interest to linguists and to all language teachers as well as more specialized articles on the commonly taught European languages, and sometimes even the less often taught languages. Articles are both descriptive and methodological in treatment.

Language Learning: A Journal of Applied Linguistics
Application of linguistics to teaching of languages; descriptive studies

of various languages; contrastive studies; classroom techniques. Major emphasis is on English as a foreign language. Usually published semi--annually by the Research Club in Language Learning in Ann Arbor, Michigan.

Linguistic Reporter

Bi-monthly newsletter published by the Center for Applied Linguistics in Washington, D. C. Source of information on research projects, meetings, institutions, personnel and recent publications. Of interest to linguists and to teachers of all languages.

TESOL Quarterly

A new quarterly journal published by TESOL (Teachers of English to Speakers of Other Languages). Concerned both with English as a foreign language and English as a second language. It is intended that the journal will serve as the central organ of the entire TEFL/TESL profession, with articles reporting research, experiments, classroom practice, descriptions of new programs, book reviews and criticisms.

VII. ANNOTATIONS

1 Wilga M. Rivers. See especially Chapter XIII, "For the Practical Teacher: Recommendations", pp. 149-163. Also, see John B. Carroll's article, "The Contributions of Psychological Theory and Educational Research to the Teaching of Foreign Languages", in which he mentions five interesting facts in methodology, pp. 104-105.

2 See Wilga M. Rivers' book, The Psychologist and the Foreign Language Teacher. This book is reputable for its account of behavioristic learning theories and foreign language teaching.

3 Noam Chomsky, Syntactic Structures.

4 Ronald Wardhaugh, p. 7.

5 Bernard Spolsky, p. 129.

6 Joshua A. Fishman, pp. 121-122.

7 Ronald Wardhaugh, pp. 10-11.

8 Wilga M. Rivers. Specifically, see the Appendix: "Theories of Learning", pp. 164-193.

9 Ronald Wardhaugh, p. 13.

10 David McNeill, p. 101.

11 Since both time and space are limited, the present discussion will not consider innateness nor language acquisition in depth. I refer the interested reader to David McNeill's article, E. S. Klima and Ursula Bellugi's article, and Sheldon Rosenberg's "Overview" on microfiche.

12 Clifford H. Prator, p. 98.

13 Ibid., pp. 99-104.

[14] Vivian J. Cook.

[15] Sheldon Rosenberg, pp. 2-3.

[16] On the other hand, disorders result from different conditions according to the behaviorists: from the use of ineffective reinforcers, insufficient reinforcement, etc.

[17] Ronald Wardhaugh, p. 17.

[18] See Paul Pimsleur's article, "Testing Foreign Language Learning", pp. 175-214.

[19] Ronald Wardhaugh. See page 19 for a bibliography on testing.

[20] Susan Ervin-Tripp, Introduction.

[21] Jan Blom and John J. Gumperz, Introduction.

[22] William Labov and Paul Cohen, p. 15.

[23] Ronald Wardhaugh. See the bibliography on page 23.

[24] Mildred R. Gladney and Lloyd Leaverton, p. 3.

[25] These are some of the topics that Susan Ervin-Tripp discusses in her article.

[26] Joshua A. Fishman, p. 122.

[27] Ibid.

[28] Ibid., p. 124.

[29] J. B. Pride, p. 14.

[30] Joshua A. Fishman, pp. 130-131.

[31] Albert A. Valdman, pp. 134-135.

[32] John B. Carroll, "A Primer of Programmed Instruction in Foreign Language Teaching", p. 115.

[33] Albert Valdman, pp. 136-137.

[34] Ibid., p. 136.

[35] Ibid., p. 140.

[36] Bernard Spolsky, p. 124.

[37] Ibid.

[38] Albert Valdman. See especially pages 154, 155, 156, 157 for a more detailed treatment of the evaluation of foreign language programmed materials.

[39] Bernard Spolsky, p. 130.

[40] Robert Lado.

[41] Uriel Weinreich. Einar Haugen has also contributed here.

[42] G. Nickel and K. H. Wagner, p. 253.

[43] Donald Topping, pp. 99-100.

[44] Carl James, p. 85.

[45] J. C. Catford, p. 159.

[46] L. Dušková.

[47] J. Donald Bowen, pp. 80-81.

[48] Ibid.

[49] G. Nickel and K. H. Wagner, p. 255.

[50] Richard A. Diebold, Jr.

[51] Ibid.

[52] Howard Lee Nostrand, pp. 1-27.

[53] Paul Pimsleur, pp. 175-215.

[54] J. Fodor and M. Garrett, pp. 135-179. Also see Noam Chomsky's Aspects of the Theory of Syntax.

[55] This list was obtained from Mrs. G. Mancill during her course of "Teaching English as a Foreign Language", Fall, 1968.

VIII. BIBLIOGRAPHY

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Also, only references cited in the paper are included here; other sources used throughout the seminar are not included in the bibliography.)

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